AMENDMENTS TO THE CLAIMS

Claims 1-10 (cancelled)

Claim 11 (new): A method for configuring a system having a plurality of processors to provide the system with at least one cluster of processors, each cluster having one service point, the method comprising the steps of:

computing a distance from each processor to other processors in the system;

computing a plurality of total distances, where each total distance is associated with one processor;

determining a minimum total distance from the plurality of total distances; and

assigning as the service point the processor having the minimum total distance associated therewith.

Claim 12 (new): A method according to claim 11, further comprising the step of partitioning the system into a plurality of clusters.

Claim 13 (new): A method according to claim 12, wherein said partitioning further comprises:

sorting the processors in accordance with the total distance associated with each processor;

assigning each processor to one of two clusters;

determining a minimum total distance for the processors in each cluster in accordance with the plurality of total distances associated with the processors in said cluster; and

assigning as the service point for each cluster the processor having the minimum total distance associated therewith in said cluster.

Claim 14 (new): A method according to claim 13, further comprising the steps of:

subdividing one of said two clusters into two subdivided clusters, thereby partitioning the system into three clusters;

determining a minimum total distance for the processors in each of said three clusters in accordance with the plurality of total distances associated with the processors in said three clusters;

assigning the processors to said three clusters in accordance with the minimum total distance; and

assigning as the service point for each of said three clusters the processor having the minimum total distance associated therewith in said cluster.

Claim 15 (new): A method according to claim 11, wherein the processors are of different types, and the processors are assigned to clusters in accordance therewith.

Claim 16 (new): A method according to claim 11, wherein said configuring is performed dynamically when a processor is added to the system.

Claim 17 (new): A method according to claim 11, wherein said configuring is performed dynamically when a processor is removed from the system.

Claim 18 (new): A method according to claim 17, wherein the partitioning of the system is dynamically changed when a processor is removed from the system.

Claim 19 (new): A method according to claim 11, further comprising the step of assigning another processor as a backup service point.

Claim 20 (new): A computer-readable storage medium having stored therein instructions for performing a method for configuring a system having a plurality of processors to provide the system with at least one cluster of processors, each cluster having one service point, the method comprising the steps of:

computing a distance from each processor to other processors in the system;

computing a plurality of total distances, where each total distance is associated with one processor;

determining a minimum total distance from the plurality of total distances; and

assigning as the service point the processor having the minimum total distance associated therewith.